



# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2015



***Presented By***  
**City of Imperial**

## Meeting the Challenge

Once again we are proud to present our annual drinking water report, covering all drinking water testing performed between January 1 and December 31, 2015. Over the years, we have dedicated ourselves to producing drinking water that meets all State and Federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to your homes and businesses. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

Please remember that we are always available to assist you should you ever have any questions or concerns about your water.

## City Council Meetings

You are invited to participate in our City Council Meetings. We meet the 1st and 3rd Wednesdays of each month beginning at 7 p.m. at the Imperial Public Library, 200 West 9th Street, Imperial, CA 92251.

## Source Water Assessment

A Source Water Assessment Plan (SWAP) is now available at our office. If you would like to review the Source Water Assessment Plan, please feel free to contact our office during regular office hours.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

**Microbial Contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

**Inorganic Contaminants**, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

**Radioactive Contaminants**, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## QUESTIONS?

For more information about this report, for any questions relating to your drinking water, or to voice your concerns about your drinking water, please call Jackie Loper, Public Services Director, or Water Plant at (760) 355-2155.



# MANDATORY WATER CONSERVATION *for everyone*

## LAWN WATERING SCHEDULE

0, 2, 4, 6, 8

Even Addresses

Tuesdays & Saturdays

1, 3, 5, 7, 9

Odd Addresses

Thursdays & Sundays



## Where Does My Water Come From?

The City of Imperial receives its water supply from the Colorado River via the All American Canal and the facilities of the Imperial Irrigation District. Our treatment process for the surface water consists of “complete” treatment, including sedimentation, coagulation, flocculation, filtration, and disinfection. The City currently provides its citizens an average of 2.3 million gallons per day and an average of 825 million gallons of water annually. At the present time, the City of Imperial meets all applicable State Water Resources Control Board, Division of Drinking Water, and U.S. Environmental Protection Agency domestic water quality standards. The raw water we receive from the All American Canal exceeded standards for aluminum and iron. Water quality data for the reporting period ending December 31, 2015, is enclosed. Recent 2015 water quality information is available for review upon request.



### Is tap water cheaper than soda?

Yes! You can refill an 8 oz. glass of tap water approximately 15,000 times for the same cost as a six-pack of soda pop. And, water has no sugar or caffeine.

### How long can a person go without water?

Although a person can live without food for more than a month, a person can only live without water for approximately one week.

### When was drinking water first regulated?

The Safe Drinking Water Act (SDWA) of 1974 represents the first time that public drinking water supplies were protected on a federal (national) level in the U.S. Amendments were made to the SDWA in 1986 and 1996.

## Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/lead](http://www.epa.gov/lead).

## Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The State requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2015	1,000	600	137 (average)	ND–550	No	Erosion of natural deposits; residue from some surface water treatment processes
Barium (ppm)	2015	1	2	0.12	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Haloacetic Acids (HAAs) <sup>1</sup> (ppb)	2015	60	NA	58.4	52.30–63.30	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] <sup>1</sup> (ppb)	2015	80	NA	51.92	42.75–63.45	No	By-product of drinking water disinfection
Turbidity (NTU)	2015	TT = 1 NTU	NA	0.15	0.0004–0.15	No	Soil runoff
Turbidity (NTU)	2015	TT 95% of samples <0.3 NTU	NA	100%	NA	No	Soil runoff
Tap water samples were collected for lead and copper analyses from sample sites throughout the community.							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2015	1.3	0.3	0.086	0/20	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2015	15	0.2	0.005	0/20	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
SECONDARY SUBSTANCES							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2015	200	NS	190	NA	No	Erosion of natural deposits; residual from some surface water treatment processes
Chloride (ppm)	2015	500	NS	130	NA	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2015	15	NS	7.5	NA	No	Naturally occurring organic materials
Iron (ppb)	2015	300	NS	180	ND–<50	No	Leaching from natural deposits; industrial wastes
Manganese (ppb)	2015	50	NS	ND	NA	No	Leaching from natural deposits
Odor–Threshold (TON)	2015	3	NS	3	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2015	1,600	NS	1,200	NA	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2015	500	NS	300	NA	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2015	1,000	NS	770	NA	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2015	5	NS	16	NA	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Alkalinity, Total</b> (ppm)	2015	160	NA	Leaching from natural deposits
<b>Bicarbonate</b> (ppm)	2015	190	NA	Leaching from natural deposits
<b>Boron</b> (ppb)	2015	200	NA	Leaching from natural deposits
<b>Calcium</b> (ppm)	2015	84	NA	Leaching from natural deposits
<b>Hardness, Total</b> (ppm)	2015	340	NA	Leaching from natural deposits
<b>Magnesium</b> (ppm)	2015	31	NA	Leaching from natural deposits
<b>pH</b> (Units)	2015	8.1	NA	Leaching from natural deposits
<b>Potassium</b> (ppm)	2015	5.0	NA	Leaching from natural deposits
<b>Sodium</b> (ppm)	2015	120	NA	Leaching from natural deposits
<b>Total Anions</b> (ppm)	2015	13.5	NA	Naturally occurring
<b>Total Cations</b> (ppm)	2015	12.1	NA	Naturally occurring
<b>Vanadium</b> (ppb)	2015	ND	NA	Leaching from natural deposits

<sup>1</sup> Data results are from the distribution system.

TREATED WATER RESULTS		
	Secondary MCL = 200 ppb	Secondary MCL = 300 ppb
	ALUMINUM (PPB)	IRON (PPB)
<b>January</b>	100	<50
<b>February</b>	140	<50
<b>March</b>	<50	<50
<b>April</b>	110	<50
<b>May</b>	180	<50
<b>June</b>	300	<50
<b>July</b>	140	<50
<b>August</b>	60	<50
<b>September</b>	<50	<50
<b>October</b>	60	<50
<b>November</b>	550	<50
<b>December</b>	<50	<50
	Range: ND-550 Average: 137	Range: ND-<50 Average: <50

VIOLATION	EXPLANATION	DURATION	ACTIONS TAKEN TO CORRECT THE VIOLATION	HEALTH EFFECTS LANGUAGE
Did not perform disinfection byproducts (TTHMs and HAA5s) monitoring during the 4th quarter of 2015	We collected our disinfection byproduct samples correctly and on time, however, our analytical laboratory did not test the samples due to technical issues	4th Quarter 2015 (October 1st - December 31st 2015)	We collected additional disinfection byproduct samples in January 2016 to make up for the missed 4th quarter 2015 monitoring. The test results for these samples and for the 1st, 2nd, and 3rd quarter samples from 2015 show our disinfection byproduct levels are below the TTHM and HAA5 Maximum Contaminate Limits (MCLs).	Some people who drink water containing trihalomethanes (TTHMs) in excess of the MCL (80 ppb) over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. Some people who drink water containing haloacetic acids (HAA5s) in excess of the MCL (60 ppb) over many years may have an increased risk of getting cancer.
VIOLATION	EXPLANATION	DURATION	ACTIONS TAKEN TO CORRECT THE VIOLATION	HEALTH EFFECTS LANGUAGE
Did not perform disinfection byproducts (TTHMs and HAA5s) monitoring during the 1st quarter of 2016	We collected our disinfection byproduct samples correctly and samples were sent to the laboratory	1st Quarter 2016 (January 2016 - DMarch 2016)	The city collected samples in April 2016 and the laboratory results and chain of custody towards the 1st quarter 2016 sampling requirements.	Some people who drink water containing trihalomethanes (TTHMs) in excess of the MCL (80 ppb) over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. Some people who drink water containing haloacetic acids (HAA5s) in excess of the MCL (60 ppb) over many years may have an increased risk of getting cancer.

## Definitions

**AL (Regulatory Action Level):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

**µS/cm (microsiemens per centimeter):** A unit expressing the amount of electrical conductivity of a solution.

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for Stage 2 TTHMs and HAAs are reported as LRAAs.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

**MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NS:** No standard

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**PDWS (Primary Drinking Water Standard):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**PHG (Public Health Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**TON (Threshold Odor Number):** A measure of odor in water.

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.